

Application Notes

hp OpenView Storage Mirroring

Using Through a Firewall Application Notes

Product Version: 4.3.3

First Edition (May 2004)

Part Number: T2557-88022

This document describes the ports used for HP OpenView Storage Mirroring communications, how to verify the port settings for your HP OpenView Storage Mirroring servers, and the proper firewall port configuration for use with HP OpenView Storage Mirroring.

For the latest version of these Application Notes and other Storage Mirroring documentation, access the HP storage web site at: <http://www.hp.com/country/us/eng/prodserv/storage.html>.



© Copyright 2004 Hewlett-Packard Development Company, L.P.

Hewlett-Packard Company makes no warranty of any kind with regard to this material, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. Hewlett-Packard shall not be liable for errors contained herein or for incidental or consequential damages in connection with the furnishing, performance, or use of this material.

This document contains proprietary information, which is protected by copyright. No part of this document may be photocopied, reproduced, or translated into another language without the prior written consent of Hewlett-Packard. The information contained in this document is subject to change without notice.

Microsoft®, MS-DOS®, MS Windows®, Windows®, and Windows NT® are U.S. registered trademarks of Microsoft Corporation.

The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

Hewlett-Packard Company shall not be liable for technical or editorial errors or omissions contained herein. The information is provided "as is" without warranty of any kind and is subject to change without notice. The warranties for Hewlett-Packard Company products are set forth in the express limited warranty statements for such products. Nothing herein should be construed as constituting an additional warranty.

Printed in USA.

HP Open View Storage Mirroring Using Through a Firewall Application Notes
First Edition (May 2004)
Part Number: T2557-88022

Table of Contents

Introduction	1
Verifying HP OpenView Storage Mirroring Port Settings	1
Opening the Firewall Ports	2

Introduction

A firewall is a program that helps prevent unauthorized access to or from a private network. A firewall examines each packet entering or leaving the network and blocks those that do not meet the specified security criteria.

HP OpenView Storage Mirroring, which provides real-time data protection and replication, can be used through a firewall as long as the firewall ports are configured to allow HP OpenView Storage Mirroring servers to communicate with each other.

This document describes the ports used for HP OpenView Storage Mirroring communications, how to verify the port settings for your HP OpenView Storage Mirroring servers, and the proper firewall port configuration for use with HP OpenView Storage Mirroring.

Due to the complexities of this process, this document is intended for network administrators with experience installing, configuring, and maintaining network applications, including HP OpenView Storage Mirroring and firewalls.

This document assumes that you have HP OpenView Storage Mirroring installed on two servers and that you have a firewall program installed and you know how to open your firewall ports.

NOTE: If you do not have HP OpenView Storage Mirroring installed, see the HP OpenView Storage Mirroring *Getting Started* guide for information on installing HP OpenView Storage Mirroring.

If you do not have a firewall installed or if you do not know how to open your firewall ports, see your firewall reference manual.

Verifying HP OpenView Storage Mirroring Port Settings

HP OpenView Storage Mirroring uses specific ports for communication between the source, target, and client machines. In order to use HP OpenView Storage Mirroring through a firewall, you must first verify the current HP OpenView Storage Mirroring port settings so that you can open the correct ports on your firewall to allow HP OpenView Storage Mirroring machines to communicate with each other.

Using the following table, locate and record your port settings for each of the four HP OpenView Storage Mirroring ports. As the table indicates, there are three different HP OpenView Storage Mirroring clients (Management Console, Text Client, and Failover Control Center) that you can use to verify each of the four port settings. For more specific information on using a particular HP OpenView Storage Mirroring client to verify a port setting, see the chapter named for that client in the HP OpenView Storage Mirroring *User's Guide*.

Port Name	Additional Names	Communication Type and Port Usage	Use Any of These Clients to Verify the HP OpenView Storage Mirroring Port Setting	Default Port Setting	Record Your Port Setting
NetPort	<ul style="list-style-type: none">◆ Service Listen Port◆ Service Transmit Port	The NetPort is used for TCP communication between HP OpenView Storage Mirroring servers and clients.	<ul style="list-style-type: none">◆ Management Console— See the Network tab on the Server Properties dialog box.◆ Text Client—Use the <code>get netport</code> command.◆ Failover Control Center—See the Set Communication Parameters dialog box.	1100	
UNetPort	<ul style="list-style-type: none">◆ Heartbeat Advertisement Port◆ Heartbeat Transmit Port◆ Heartbeat Listen Port	The UNetPort is used to send and receive HP OpenView Storage Mirroring heartbeats which are broadcast UDP communications.	<ul style="list-style-type: none">◆ Management Console— See the Configuration tab on the Management Console Options dialog box.◆ Management Console— See the Network tab on the Server Properties dialog box.◆ Text Client—Use the <code>get unetport</code> command.◆ Failover Control Center—See the Set Communication Parameters dialog box.	1100	

Port Name	Additional Names	Communication Type and Port Usage	Use Any of These Clients to Verify the HP OpenView Storage Mirroring Port Setting	Default Port Setting	Record Your Port Setting
DirUNetPort	<ul style="list-style-type: none"> ◆ Status Transmit Port ◆ Status Listen Port 	The DirUNetPort sends directed UDP communications to request and receive status updates, keeping the HP OpenView Storage Mirroring Management Console at-a-glance monitoring current.	<ul style="list-style-type: none"> ◆ Management Console— See the Configuration tab on the Management Console Options dialog box. ◆ Management Console— See the Network tab on the Server Properties dialog box. ◆ Text Client—Use the <code>get dirunetport</code> command. 	1105	
StatsPort		The StatsPort accepts TCP communications from DTStat.	<ul style="list-style-type: none"> ◆ Text Client—Use the <code>get statsport</code> command. 	1106	

NOTE: Because these ports appear on multiple machines (sources, targets, and clients), the port settings have to be identical on the machines that need to communicate with each other. For example, a source with a NetPort setting of 1100 will only be able to communicate with other machines (sources, target, and clients) that also have a NetPort of 1100. If any machine has a NetPort setting of any value other than 1100, that machine cannot communicate with this source. Therefore, if you change a port setting on one machine, perhaps your source, you will also need to make the same change to the target(s) and client(s) that the source needs to communicate with.

Opening the Firewall Ports

Using the values from the table in [Verifying HP OpenView Storage Mirroring Port Settings](#), configure your firewall ports for both inbound and outbound traffic so that the HP OpenView Storage Mirroring servers can communicate with each other. For specific steps in configuring these ports, see your firewall reference manual.

1. Open the port assigned to the NetPort and StatsPort for the inbound and outbound transmission of TCP packets.
2. Open the port assigned to the UNetPort and DirUNetPort for the inbound and outbound transmission of UDP packets.